

ABSTRACT

A process of producing aldehydes in a continuous hydroformylation process of continuously reacting an olefinic unsaturated compound with carbon monoxide and hydrogen in the presence of a rhodium-phosphite based complex catalyst and continuously separating at least one component from a reaction product, the process being characterized in that at least a part of an aldehyde product and water are taken out as a mixed vapor flow from a catalyst-existent region in the process, and at least a part thereof is fed outside the catalyst-existent region as it stands as the vapor or as a condensate after cooling, to reduce the water concentration within the catalyst-existent region, whereby decomposition of phosphite ligands in the hydroformylation process of olefins is suppressed.